

REMARKSStatus of the Claims

Claims 1-88 are now pending in the present application. Claims 1 and 55 have been amended to more clearly define the invention, and new Claim 88 has been added.

Claims Rejected under 35 U.S.C. § 102

The Examiner has rejected Claims 1-5, 7-8, 12-16, 25-27, 31-33, 40-48, 53-67, 69-78, and 80-87 under 35 U.S.C. § 102(b) and (e) as being anticipated by Reid, Bather, Corrigan, Bromberg, Oranth, or Linker. The Examiner provided no explanation regarding why he concluded that the cited prior art anticipates applicants' claimed invention. In any case, applicants respectfully disagree with the Examiner's conclusion for the following reasons. Further, applicants respectfully request that should the Examiner fail to allow the application in view of the following discussion, the Examiner articulate and explain the reasons for his rejection of the claims, so that applicants can better understand how to respond.

Applicants were aware of these references when drafting the claims and believe the recited combination of a triggering sampler and a detecting sampler is novel and distinguishes over the cited art. Applicants' claims recite a triggering sampler configured to detect particles, and a detecting sampler configured to obtain a sample of particulates in response to the triggering sampler's detection of the particles. As described in detail in applicants' specification, the triggering sampler monitors the air in a housing by keeping track of particulate counts in an ongoing fashion, so that a sample is only acquired for more detailed analysis when high particle counts indicate a potentially hazardous condition might have been detected. Increased particulates might indicate a problem, but such particles might also be innocuous. The triggering sample produces a detection signal that is used to cause a detecting sampler to take a sample only when such increased particle counts are noted. That sample can then be analyzed in detail (i.e., beyond a particle count) to determine if a dangerous condition is present. Independent Claims 1, 53, 54, and 55 include the elements of a triggering sampler and a detection sampler driven by a signal from the triggering sampler, recited either as structure or as steps.

Reid discloses a method of detecting contraband substances in freight cargo containers in which the container is agitated to disturb particulates therein, and air containing such particulates is then sampled and the particulates collected. The collected particulates preferably include naturally

1 occurring particulates that have absorbed vapors of the contraband substance during the entire time  
2 that the container has been closed, and also include particulates of the contraband substance itself.  
3 The collected particulates are heated to drive off vapors indicative of the contraband substance and  
4 the vapors are analyzed in a mass analyzer. As defined in Claims 1, 53, and 54, applicants' invention  
5 includes a triggering sampler capable of detecting particles associated with a parcel that are entrained  
6 within the volume of air in a housing, which generates a detection signal in response to the detection  
7 of such particles. That detection signal is received by a detecting sampler, which in turn takes an  
8 additional sample in response to the detection signal.

9 Reid simply does not disclose any element that detects particles and generates a detection  
10 signal, or an element that takes a sample only in response to a detection signal. Reid only describes  
11 collecting a sample and analyzing the sample to obtain a signal. Even if Reid's mass  
12 spectrophotometer is considered to "detect particles" (and Reid clearly teaches that the mass  
13 spectrophotometer is actually detecting vapors driven off the particles as the particles are heated, the  
14 particles remaining in a collector while the vapors are conveyed to the mass spectrophotometer), the  
15 signal produced by the spectrophotometer is *not* used by a detecting sampler that obtains an  
16 additional sample in response to the signal. With respect to Claim 55, Reid does not disclose  
17 obtaining first and second samples of *particles* (Reid discloses a first sample of particles and a second  
18 sample of *vapors* driven off the first sample of particles). Even more significantly, Reid does not  
19 disclose determining a quantitative or qualitative measure of the first sample of particles, such that in  
20 response to such a determination, an analysis is performed. Reid simply analyzes vapors collected  
21 from the particles that are heated. Reid discloses only one analysis, not a quantitative or qualitative  
22 measure followed by a determination of whether a chemical or biological agent is present. Reid does  
23 not teach an equivalent to applicants' claimed invention, and there does not appear to be any basis in  
24 the cited art for concluding that it would be obvious to modify Reid's system to achieve the present  
25 invention.

26 Bather discloses a method of detecting a dangerous substance such as explosives or drugs in  
27 an article in transit. The method includes the steps of taking a sample of atmosphere from the  
28 vicinity of the article, causing the sample to enter an ionization chamber of a mass spectrometer,  
29 obtaining a mass spectrum of one or more constituents of the sample, comparing the mass spectrum  
30 with one or more reference spectra, and generating a signal indicative of any dangerous substance in

1 the sample. Even if Bather's mass spectrometer is considered to be a triggering sampler that  
2 produces a detection signal, Bather does not disclose a detecting sampler that obtains another sample  
3 *in response to a detection signal provided by the triggering sampler.* Bather does not teach an  
4 equivalent of applicants' claimed invention, and there is no basis in the cited art that would lead one  
5 of ordinary skill to modify Bather's method to achieve the present claimed invention.

6 Corrigan discloses an explosive detection screening system used for the detection of  
7 explosives and other controlled substances such as drugs or narcotics. The screening system detects  
8 the vapor and/or particulate emissions from the aforementioned substances and reports that they are  
9 present on an individual or object and reports the concentration of each substance detected. The  
10 screening system includes a sampling chamber for the collection of the vapor and/or particulate  
11 emissions, a concentration and analyzing system for the purification of the collected vapor and/or  
12 particulate emissions and subsequent detailed chemical analysis of the emissions, and a control and  
13 data processing system for the control of the overall system. Significantly, Corrigan's system  
14 collects two samples, but these samples are collected simultaneously, with one sample being particles  
15 and the other sample being vapors. Corrigan does not teach or suggest a triggering sampler that  
16 provides a detection signal when particles are detected, and a sampling detector that obtains a sample  
17 of particles *in response to receiving the detection signal from the triggering sampler.* The cited art  
18 does not appear to provide any basis for modifying Corrigan's disclosure to achieve an equivalent to  
19 applicants' claimed invention.

20 Bromberg discloses sampling apparatus that collects an air sample from a subject such as a  
21 person. The apparatus includes a bypass that divides the sample air stream into a bypass portion and  
22 a collector portion. The collector portion of the air stream is delivered to a collector, which traps  
23 entrained particles. After the sampling cycle concludes, a mechanical conveyor removes the collector  
24 from fluid communication with the bypass and transports it to an analyzing unit. A chamber in the  
25 unit receives the collector, and a diverter couples the chamber with either of two vapor and/or particle  
26 analyzers. During analysis, a heater in the unit heats both the chamber and the diverter. A sample  
27 collected from one subject can be analyzed in one of the analyzers while another sample is being  
28 collected from another subject. The other analyzer can then be used to analyze the second sample. In  
29 a preferred embodiment, Bromberg's system is implemented much like an airport x-ray gate through  
30 which passengers pass for security screening. It is significant to note that Bromberg teaches that a

1 sampling cycle is initiated when a person breaks a light beam as the person approaches a portal that  
2 includes sample wands, and the timing of the sampling cycle is based on a normal walking pace, so  
3 that the sampling cycle is active as the person walks through the portal. The collected sample is then  
4 analyzed. In the present invention, the triggering sampler is always active, constantly monitoring the  
5 particulate count. When particulates are detected (or a threshold level is exceeded), the triggering  
6 sampler sends a detection signal to the detecting sampler, which obtains another sample of the  
7 particles. That sample can be stored or analyzed. Bromberg teaches a completely different trigger  
8 for a sampling cycle. The cited art does not appear to provide any basis for modifying Bromberg's  
9 disclosure to achieve applicants' claimed invention or an equivalent.

10 Oranth discloses a method for collectively sampling a plurality of cargo items for  
11 contaminants such as chemical residues. The items are placed in a generally airtight chamber and  
12 agitated physically to release particulates and vapors from the surfaces and interior of the items. The  
13 alternative method taught for physical agitation include vibrating the items, and pressurizing and  
14 depressurizing the chamber, with the pressurizing being done by introducing bursts of high-pressure  
15 air into the chamber and by directing jets of high-pressure air at the cargo. Optionally, the  
16 high-pressure air may be heated or mixed with solvent vapors. This physical agitation drives  
17 particulates and vapors from any contaminants into suspension in the air in the chamber. Air  
18 withdrawn during depressurization is passed through a collection system to collect the particulates  
19 and vapors for subsequent analysis. Oranth discloses a system configured for a similar purpose, i.e.,  
20 sampling parcels for contaminants; however, Oranth performs the sampling in a fundamentally  
21 different way than recited by applicants' claims. Oranth's sampling is based on successive  
22 pressurization and depressurization cycles. Parcels are placed in a housing. Jets of fluid or solvent  
23 are introduced to dislodge particulates. The housing is then depressurized such that the exhausted  
24 fluids are sampled. In the present invention, the triggering sampler constantly monitors the level of  
25 particulates within the housing, such that a sample is taken by the detecting sampler *only* when the  
26 triggering sample provides a detection signal. The sampling cycle in the present claimed invention is  
27 clearly different. The cited art does not appear to provide any basis for modifying Oranth's  
28 disclosure to achieve applicants' claimed invention.

29 Linker discloses a portal apparatus for screening persons or objects for the presence of trace  
30 amounts of target substances such as explosives, narcotics, radioactive materials, and certain

1 chemical materials. The portal apparatus has a one-sided exhaust for an exhaust stream, an interior  
2 wall configuration with a concave shape across a horizontal cross section for each of two facing sides  
3 to improve airflow and reduce washout relative to a configuration with substantially flat parallel  
4 sides, air curtains to reduce washout, ionizing sprays to collect particles bound by static forces, as  
5 well as gas jet nozzles to dislodge particles bound by adhesion to the screened person or object. The  
6 portal apparatus can be included in a detection system with a pre-concentrator and a detector.  
7 Significantly, Linker also teaches a sampling cycle initiated by a person or object interrupting a light  
8 beam. The sample cycle in the present invention includes two distinct parts: a triggering sampler  
9 that constantly determines if particulates are present, and a detecting sampler that only takes a sample  
10 when the triggering sampler determine particles are present. The cited art does not appear to provide  
11 any basis for modifying Linker's disclosure to achieve applicants' claimed invention or an  
12 equivalent.

13 For the reasons discussed above, Reid, Bather, Corrigan, Bromberg, Oranth, and Linker do  
14 not teach an equivalent to the invention recited in Claims 1, 53, 54, and 55. Dependent claims are  
15 patentable for at least the same reasons as the claims from which they depend, and thus, each claim  
16 dependent on Claims 1, 53, 54, and 55 is patentable for at least the same reasons as those claims.  
17 Accordingly, the rejections of Claims 1-5, 7-8, 12-16, 25-27, 31-33, 40-48, 53-67, 69-78, and 80-87  
18 under 35 U.S.C. § 102(b) and §102(e) as being anticipated by Reid, Bather, Corrigan, Bromberg,  
19 Oranth, or Linker should be withdrawn.

20 The Examiner has further rejected Claims 1-5, 7-12, 14-20, 25-27, 31-33, 40-48, 53-67,  
21 69-78, and 80-87 under 35 U.S.C. § 102(e) as being anticipated by Gitis et al. The Examiner notes  
22 that Gitis discloses a system for detecting a hazardous material in a parcel. The parcel is confined to  
23 a chamber and cutting means open the parcel slightly to release the particles from inside the parcel.  
24 The Examiner specifically notes that Gitis discloses laser and blades to open envelopes, and that  
25 particle counters can be used in the apparatus, along with optical spectroscopy and fluorescence.  
26 Applicants respectfully disagree for the following reasons.

27 The Examiner is correct that Gitis describes a system configured to provide a similar  
28 functionality, and that Gitis specifically describes some of the elements recited in applicants claims.  
29 However, as discussed above, applicants recite a very specific configuration of a triggering sample  
30 and a second, detecting sampler, which does not appear to be taught or suggested by Gitis. In

1 particular, Gitis discloses a particle analyzer that counts the particles, and based on the  
2 size/distribution of particles, an identification of the substance is made. A buzzer sounds, alerting the  
3 operator to a hazardous condition. Gitis suggests that if additional analysis is desired, the entire unit  
4 can be sent to a lab for analysis. While the particle analyzer disclosed by Gitis is similar to  
5 applicants' recited triggering sampler, Gitis does not teach or suggest a detecting sampler, which is  
6 configured to obtain a sample of the particulates upon receipt of a detection signal from the triggering  
7 sampler. Gitis simply teaches that if the particle analyzer does not provide a sufficiently detailed  
8 analysis based on size distribution, a second sample could be taken. Suggesting that a sample could  
9 be taken is not equivalent to teaching or suggesting a *"detecting sampler in fluid communication with*  
10 *said volume of air and electrically coupled to respond to the detection signal from said triggering*  
11 *sampler, said detecting sampler, in response to said detection signal, removing particles entrained*  
12 *within said volume of air, thereby obtaining a sample of particles, to enable an analysis to determine*  
13 *if particles associated with a parcel that are collected by the detecting sampler are hazardous"* (from  
14 applicants' Claim 1; similar language is used in Claims 53 and 54). Gitis does not teach or suggest a  
15 second sampler that is configured to obtain a sample in response to a detection signal provided by a  
16 first sampler.

17 Referring now to independent Claim 55 of the present application, a method is defined that  
18 includes the steps of obtaining a first sample using a first sampling system, and based on an analysis  
19 of the first sample, obtaining a second sample using a second sampling system. Gitis teaches that if a  
20 first sample is not sufficient, the entire device can be taken to a laboratory for further analysis.  
21 Claim 55 as amended clearly recites that the second sample is taken automatically, in response to the  
22 evaluation of the first sample. Gitis does not teach or suggest that the second sample be taken  
23 automatically. Indeed, Gitis clearly teaches that taking the second sample will only be required in  
24 rare cases, as the particle counter employed by Gitis is preferably configured to specifically identify  
25 the material being sampled, so that a second sample is not required. Thus, it would be illogical to  
26 modify Gitis to automatically obtain a second sample each time the particle counter analyzes a first  
27 sample.

28 For the reasons discussed above, Gitis does not disclose an equivalent to the invention as  
29 defined by Claims 1, 53, 54, and 55. Because dependent claims are patentable for at least the same  
30 reasons as the claims from which they depend, each claim respectively dependent on Claims 1, 53,

1 54, and 55 is patentable for at least the same reasons as the parent independent claim. Accordingly,  
2 the rejections of Claims 1-5, 7-12, 14-20, 25-27, 31-33, 40-48, 53-67, 69-78, and 80-87 under  
3 35 U.S.C. § 102(e) as being anticipated by Gitis should be withdrawn.

4 The above discussion focuses on elements introduced in applicants' independent claims that  
5 appear to distinguish over the cited art. Many dependent claims further appear to introduce other  
6 distinguishing elements. Although the elements that distinguish over the cited art are not discussed  
7 for all of the dependent claims, a selected few of the dependent claims are discussed below.

8 Claim 7 recites a parcel feed system that conveys a plurality of parcels into a housing one by  
9 one. It is not clear what prior art the Examiner has relied upon as disclosing this element, since the  
10 cited art appears to disclose portal systems with no feed system (people walk through the portal) or  
11 batch systems where one or more parcels are sealed into a housing, and then a sample of the air in the  
12 housing is collected. None of the cited art appears to disclose a feed system for continually  
13 monitoring parcels moving through the system.

14 Claim 12 recites means for applying pressure to a parcel. Various references cited by the  
15 Examiner disclose using lasers, blades, jets of compressed fluids directed at a parcel, and/or agitation  
16 to dislodge particles from parcels. It is not clear that any reference cited by the Examiner discloses  
17 applying pressure to a parcel to facilitate a release of particles from the parcel.

18 Claim 16 recites that the detection signal is produced by the triggering sampler only when the  
19 triggering sampler determines a number of biological particles in the housing increases substantially.  
20 The detection signal causes the detecting sampler to obtain a sampler at that point. The cited art does  
21 not appear to teach producing a detection signal when the number of biological particles in a housing  
22 increases, so that the detection signal prompts the collection of another sample.

23 Claim 32 recites that a radial arm collector is magnetically coupled to a prime mover. The  
24 cited art does not appear to teach or suggest radial arm collectors, or magnetically coupling such an  
25 element to a prime mover.

26 Claim 85 recites the step of depositing a spot of particles on an archival surface, such that  
27 each different spot corresponds to a different particle. Claim 87 recites the step of obtaining an  
28 archival sample whenever biological or chemical agents are detected. Using an archival sampler in  
29 such a manner does not appear to be taught or suggested by the cited art.

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1 Claims Rejected under 35 U.S.C. § 103

2 The Examiner has rejected Claims 6, 21, and 34-39 under 35 U.S.C. § 103(a) as being  
3 obvious over Reid, Bather, Corrigan, Bromberg, Oranth, Linker, and Gitis, in view of Halvorsen.  
4 The Examiner asserts that Halvorsen discloses impact collectors and HEPA filters and concludes it  
5 would have been obvious to integrate such components into any of the other cited art. The Examiner  
6 has further rejected Claims 22-24, 28-30, 49-52, 68, and 79 under 35 U.S.C. § 103(a) as being  
7 obvious over Reid, Bather, Corrigan, Bromberg, Oranth, Linker, and/or Gitis in view of Carver. The  
8 Examiner asserts that Carver discloses rinsing particle counters and indicates that it would have been  
9 obvious to integrate such components into any of the other cited art. Applicants respectfully disagree  
10 for the following reasons.

11 As discussed in detail above, each of applicants' independent apparatus claims (Claims 1, 53,  
12 and 54) recites a triggering sampler that responds to particles, and a detecting sampler. The  
13 triggering sampler operates continuously, sampling particles in the housing. The detecting sampler  
14 does not operate continuously. The detecting sampler only obtains a sample in response to a  
15 detection signal provided by the triggering sampler. As described in applicants' specification, the  
16 theory behind this arrangement is to use a relatively low cost and simple particle counter as the  
17 triggering sampler. Once the triggering sampler detects an unusual condition (i.e., a sharp increase in  
18 particle count), the detecting sample is activated, and a sample is taken. In some embodiments, the  
19 sample is processed in the apparatus; in other embodiments, the sample is retrieved by a technician  
20 for analysis.

21 The cited art describes various systems for obtaining and analyzing samples. It is significant  
22 to note that none of the art describes two samplers configured so that the second sampler is activated  
23 by a signal provided by the first sampler. Bromberg describes two analyzers coupled to the same  
24 sampler, because samples can be collected faster than the analysis can be performed. That  
25 configuration is not equivalent to, or even closely related to, the recited configuration of a triggering  
26 sampler, and a detecting sampler that responds to the signal from the triggering sampler.

27 With respect to applicants' independent method claim (Claim 55), which recites taking a first  
28 sample, evaluating the first sample, and in response to the evaluation of the first sample automatically  
29 taking a second sample, again, none of the cited art teaches or suggests any equivalent method.  
30 Significantly, neither Halvorsen nor Carver discloses any elements or steps that when combined with



1 any of the other cited art, would achieve an invention equivalent to the invention recited in applicants  
2 independent claims. Nor is there any evidence that the modifications to the cited art required to  
3 achieve an equivalent invention would have been obvious to one of ordinary skill in the art.

4 As noted above, dependent claims must be patentable for at least the same reasons as the  
5 claims from which they depend, thus each claim dependent on Claims 1, 53, 54 and 55 are patentable  
6 for at least the same reasons. Accordingly, the rejections of Claims 6, 21, and 34-39 as being obvious  
7 over Reid, Bather, Corrigan, Bromberg, Oranth, Linker and Gitis in view of Halvorsen, and the  
8 rejection of Claims 22-24, 28-30, 49-52, 68, and 79 as being obvious over Reid, Bather, Corrigan,  
9 Bromberg, Oranth, Linker, and/or Gitis in view of Carver, should be withdrawn.

10 Referring now to the rejection of Claim 21 in particular, applicants note that Claim 21 defines  
11 a triggering sampler including a *virtual impactor* for separating particles into different sizes, such that  
12 particles of a certain size range are preferentially sampled. Halvorsen (in FIGURE 9) shows a  
13 mechanism for segregating aerosolized particles into same size groups, based on directing charged  
14 particles into a volume including a charged rod disposed axially in the volume. While Halvorsen's  
15 differential mobility analyzer performs a function similar to that of a virtual impactor, it does so in a  
16 different manner. As described in detail in applicants' specification, virtual impactors require no  
17 electrical charge, relying solely on the configurations of fluid passages to separate particles of  
18 different size. Furthermore, the minor flow and major flows recited in Claim 21 are not identical in  
19 Halvorsen's device. Halvorsen discloses two outlets, an outlet 102 where the majority of the fluid  
20 exits, and an outlet 104, where only a small portion of the fluid exits. However, in Halvorsen's  
21 device, most particles above a predetermined size exit via outlet 102 (i.e. the major flow), while  
22 almost no particles above a predetermined size exit via outlet 104. In applicants' recited virtual  
23 impactor, few particles over a predetermined size exit via the major flow, while most particles over  
24 the predetermined size exit via the minor flow (which is opposite to the separation occurring in  
25 Halvorsen's device). The structure and operating principles behind the virtual impactor disclosed by  
26 applicants and Halvorsen's differential mobility analyzer are not equivalent. Further, Halvorsen is  
27 directed to a method of fit testing respirators, not to sampling parcels to determine if hazardous  
28 materials are associated with such parcels. None of the art cited suggests that such virtual impactors  
29 be included in a particle sampler, and Halvorsen does not teach or suggest that the mechanism of  
30 FIGURE 9 be modified so that it could be incorporated into triggering samplers. Thus, the

1 combination proposed by the Examiner appears to be impermissibly based on hindsight.  
2 Claims 23, 30, 34, and 35 each similarly recite a virtual impactor. For this additional reason, the  
3 rejection of Claim 21 (and of Claims 23, 30, 34, and 35) should be withdrawn.

4 With respect to the rejection of Claim 34, applicants note that Claim 34 depends on Claim 33,  
5 which defines an archival sampler. Thus Claim 33 defines an apparatus that includes a triggering  
6 sampler, a detecting sampler, and an archival sampler. None of the cited art includes three separate  
7 samplers, nor is there any evidence as to why such a configuration would have been obvious.  
8 Claim 34 further defines the archival sampler to be a virtual impactor adjacent to a surface, and the  
9 surface being coupled to a prime mover so that over time, the surface moves relative to the virtual  
10 impactor so particles are directed to a fresh surface. Such elements are not disclosed in the cited art,  
11 and there is no evidence that the modifications to the cited art required to achieve an equivalent to  
12 applicants' claimed invention would have been obvious to one of ordinary skill in the art. For this  
13 additional reason, the rejection of Claims 33 and 34 should be withdrawn.

14 Referring now to the rejection of Claims 36-39, these claims further define the virtual  
15 impactor. Claims 36-39 are based on claims allowed in commonly assigned U.S. Patent  
16 No. 6,290,065, to which the present application claims priority. Because Claims 36-39 are dependent  
17 claims, they include more elements than do the claims recited in the '065 patent and thus are more  
18 narrowly defined and not identical to the claims in the '065 patent. Still, the elements that made the  
19 claims in the '065 patent allowable (i.e., the structural elements of the virtual impactor) should also  
20 render Claims 36-39 allowable. Furthermore, FIGURE 9 of Halvorsen does not show a configuration  
21 that is equivalent to the specifically defined virtual impactors of Claims 36-39, and there is no  
22 evidence that it would have been obvious to an artisan of ordinary skill to modify the cited art to  
23 achieve the virtual impactors of Claims 36-39. For this additional reason, the rejection of  
24 Claims 36-39 should be withdrawn.

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1 In rejecting Claims 22 and 28, the Examiner indicates that Carver suggests rinsing a particle  
2 collector. However, in addition to reciting a rinse fluid, Claims 22 and 28 recite a radial arm  
3 collector. Radial arm collectors are defined and described in applicants' specification starting at  
4 page 56. The cited does not appear to teach or suggest anything equivalent to a radial arm collector.  
5 For this additional reason, the rejection of Claims 22 and 28 should be withdrawn.

6 The Examiner rejected Claim 24 and 29, which recite rinsing using an enzyme that degrades  
7 cellulose, because Carver suggests rinsing (no details are provided by Carver with respect to any  
8 particular rinse fluid). The cited art does not teach or suggest rinsing with an enzyme that degrades  
9 cellulose, and there is not any evidence such a rinse fluid would have been obvious to one of ordinary  
10 skill in the art. For this additional reason, the rejection of Claims 24 and 29 should be withdrawn.

11 The Examiner rejected Claims 49-52 and 70, which recite decontamination elements, as being  
12 obvious based on a combination of Carver with other cited art. While Carver teaches rinsing, Carver  
13 does not disclose or suggest decontamination, particularly disinfecting. Water can be used as a rinse  
14 fluid without disinfection of the surface that is rinsed. For this additional reason, the rejection of  
15 Claims 49-52 and 70 should be withdrawn.

16 Patentability of New Claim 88

17 New Claim 88 is based on existing Claim 1, and further recites that the triggering sampler  
18 regularly samples the air within the housing. This configuration is fully supported by the  
19 specification. Claim 88 has been added to emphasize a further distinction in the sampling cycle of  
20 the present invention that differs from the cited art. As discussed above, the purpose of the triggering  
21 sampler is to continually monitor the particle levels in the housing, such that a change results in a  
22 detection signal prompting the detecting sampler to obtain a sample. The cited art does not teach or  
23 suggest such a sample cycle.

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1 In view of the preceding amendment and remarks, it will be apparent that all claims in this  
2 case define a novel and non-obvious invention, and that the application is in condition for allowance  
3 and should be passed to issue without delay. Should any further questions remain, the Examiner is  
4 asked to telephone applicant's attorney at the number listed below.

5 Respectfully submitted,

6  
7 *Ron Anderson*

8 Ronald M. Anderson  
9 Registration No. 28,829

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*Kathy Paulin*